Wayne
Task: 7305

March 3, 2016

Minerals Program
Division of Oil, Gas, and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

RE: Submittal to Replace Existing Mining Plan for the Number 1 Clark Mine, C/015/074, Emery County, Utah

Emery Minerals, LLC, lease holder of Utah State Lease ML-43181 and owner of the Number 1 Clark Mine (permittee), by and through its operator, Miracle Rock Mining and Research (operator), hereby submits a newly revised operation plan and application package to replace the existing plan approved in 2011. The reserves at existing site have been exhausted and reclamation activities (backfilled and regraded only) have been conducted to comply with the R647 Utah Mineral Regulations. A new site is being proposed to replace the exhausted reserves in this existing site. The new plan intends to utilize highwall mining methods to mine humate from the State lease property. Emery Minerals LLC retains the rights to mine on this property.

The complete application contains a revised notice of intent to commence small mining operations (MR-SMO). Attached to the MR-SMO are a location map, surface facility map, and an operation plan.

Form MR-REV is included with this submittal to provide assistance in placement of the approved permit information. Once the NOI application is approved, Form MR-RC will be included for signatory provisions of the bonding agreement. If you have any questions or concerns regarding this submittal, please contact me at 435-286-2222.

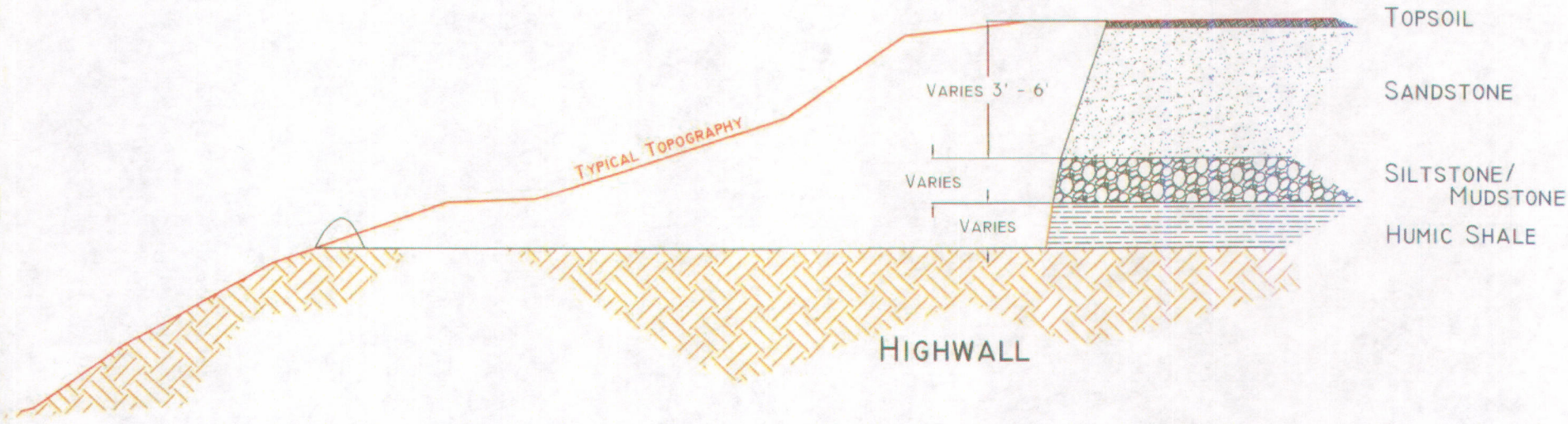
Sincerely,

David Taylor
Operator of Number 1 Clark Mine

RECEIVED
MAR 31 2016
Div. of Oil, Gas & Mining

Enclosures
Form MR-SMO
MR-REV
Operation Plan
Figures 1-5

Cc Dennis Oakley



NOTE: TYPICAL CROSS-SECTION - LENGTHS AND DISTANCES MAY VARY.
PRE-MINING CONTOUR IS ASSUMED BASED ON ADJACENT TOPOGRAPHY.
NO MATERIAL WILL BE CAST OFF SLOPE.
SPOIL WILL BE STORED ON PAD, USED AS ROAD FOUNDATION, OR BERM MATERIAL.
BERM CONSTRUCTION WILL COMPLY WITH MSHA REGULATIONS.

REVISIONS	DATE
AMENDED FIGURE NUMBER	5/27/2016

NUMBER 1 CLARK MINE

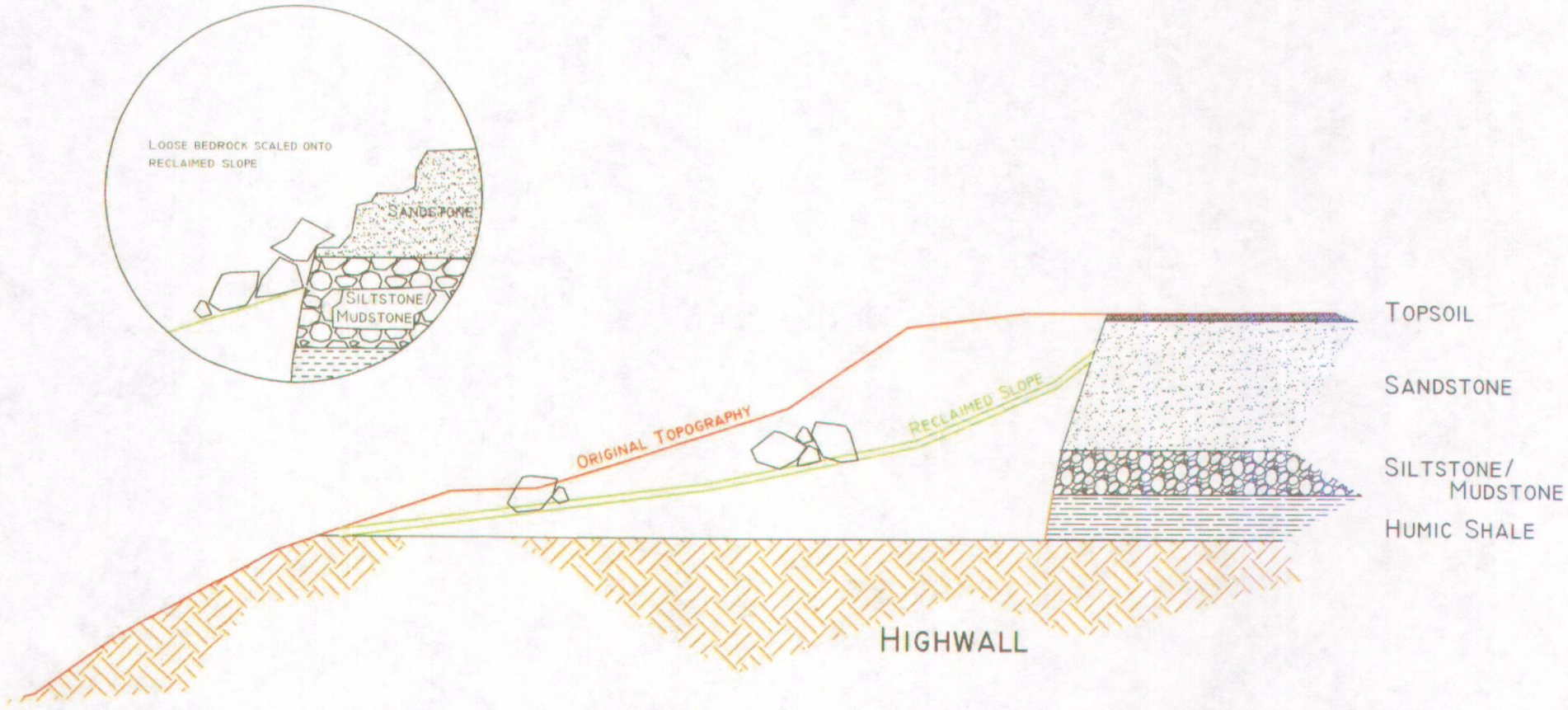
TYPICAL CROSS-SECTION
MINE PAD - HIGHWALL CONFIGURATION

DRAWN BY:	D. OAKLEY
SCALE:	NONE
DATE:	02/3/2011

FIGURE 4

DRAWING NO.:

SHEET NO.: 1 OF 1



NOTE

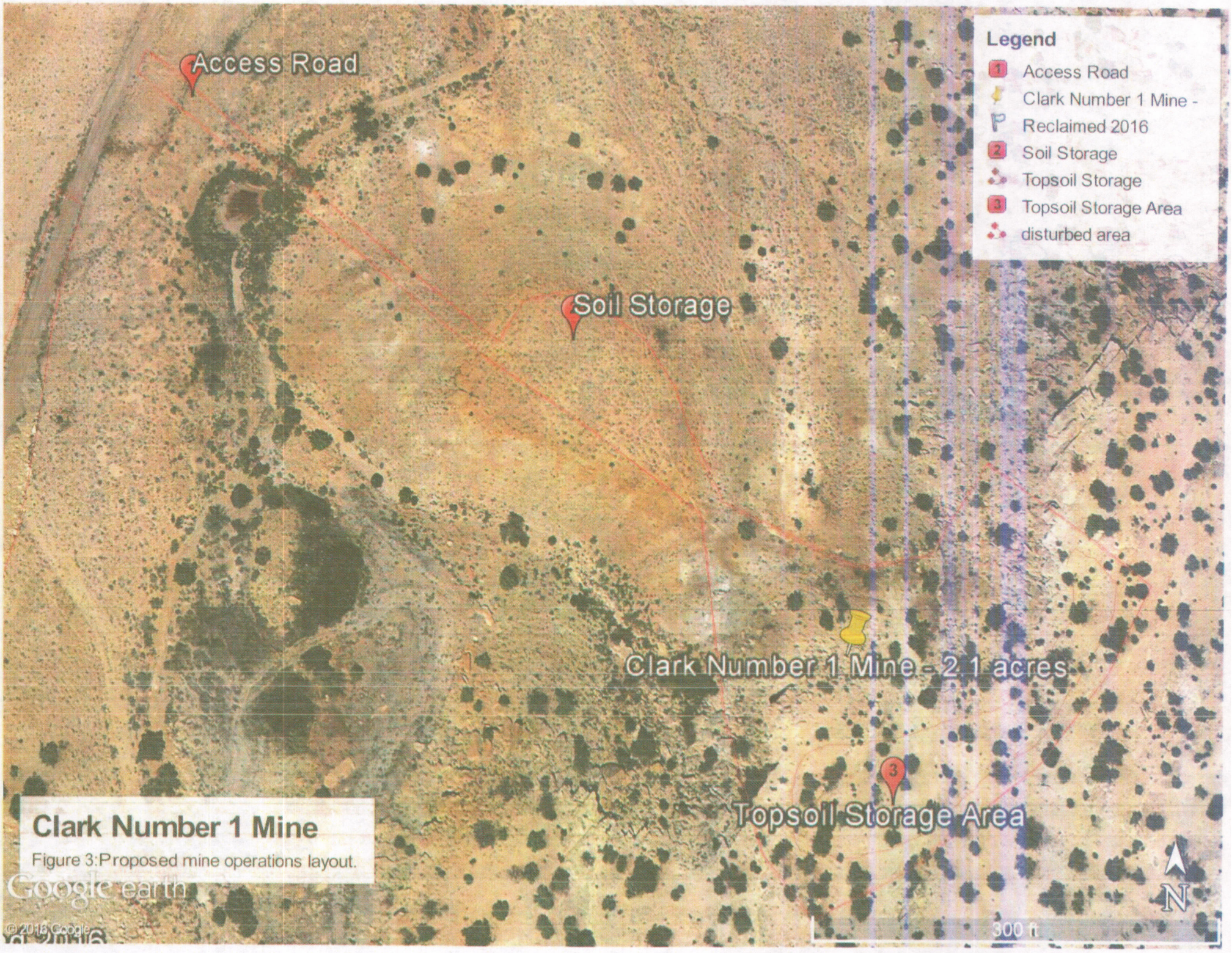
- FILL SLOPE WILL BE BLENDED INTO THE EXISTING SLOPE
- FILL SLOPE CONSTRUCTED AS CONCAVE TOPOGRAPHY
- BOULDERS WILL BE NESTED INTO FILL SLOPE FOR EROSION CONTROL AND WILDLIFE HABITAT
- SLOPE CONFIGURATION MAY VARY DEPENDING ON FILL VOLUME
- STORED TOPSOIL WILL BE SPREAD OVER RECLAIMED FILL SLOPE
- SEED MIX FOR RECLAIMED WILL BE APPROVED BY DOGM

REVISIONS	DATE
AMENDED FIGURE NUMBER	5/27/2016

NUMBER 1 CLARK MINE

TYPICAL CROSS-SECTION
MINE PAD - HIGHWALL RECLAMATION

D. OAKLEY	FIGURE 5
NONE	DRAWING NO.:
2/3/2011	SHEET NO.: 1 OF 1



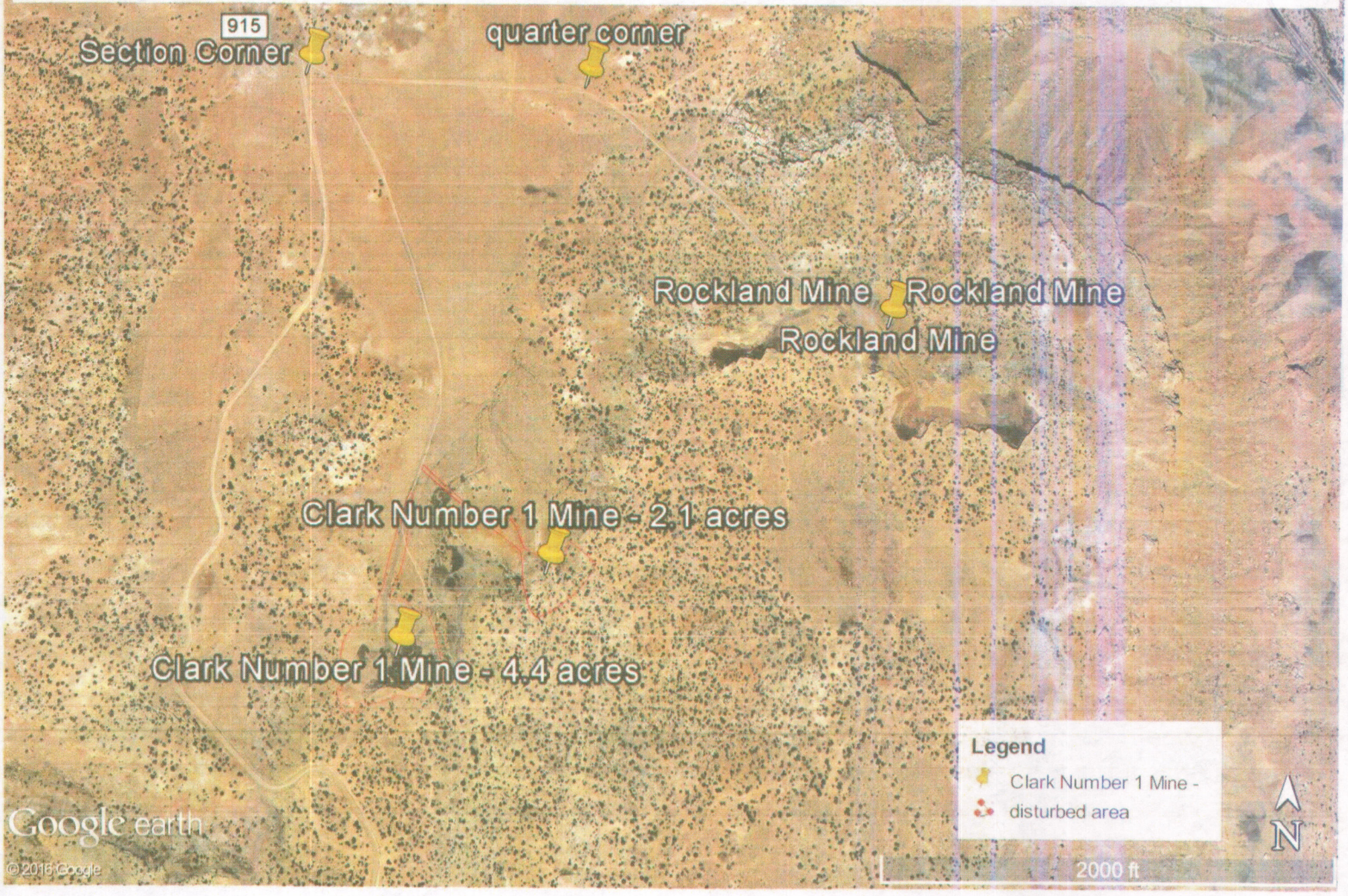
Clark Number 1 Mine

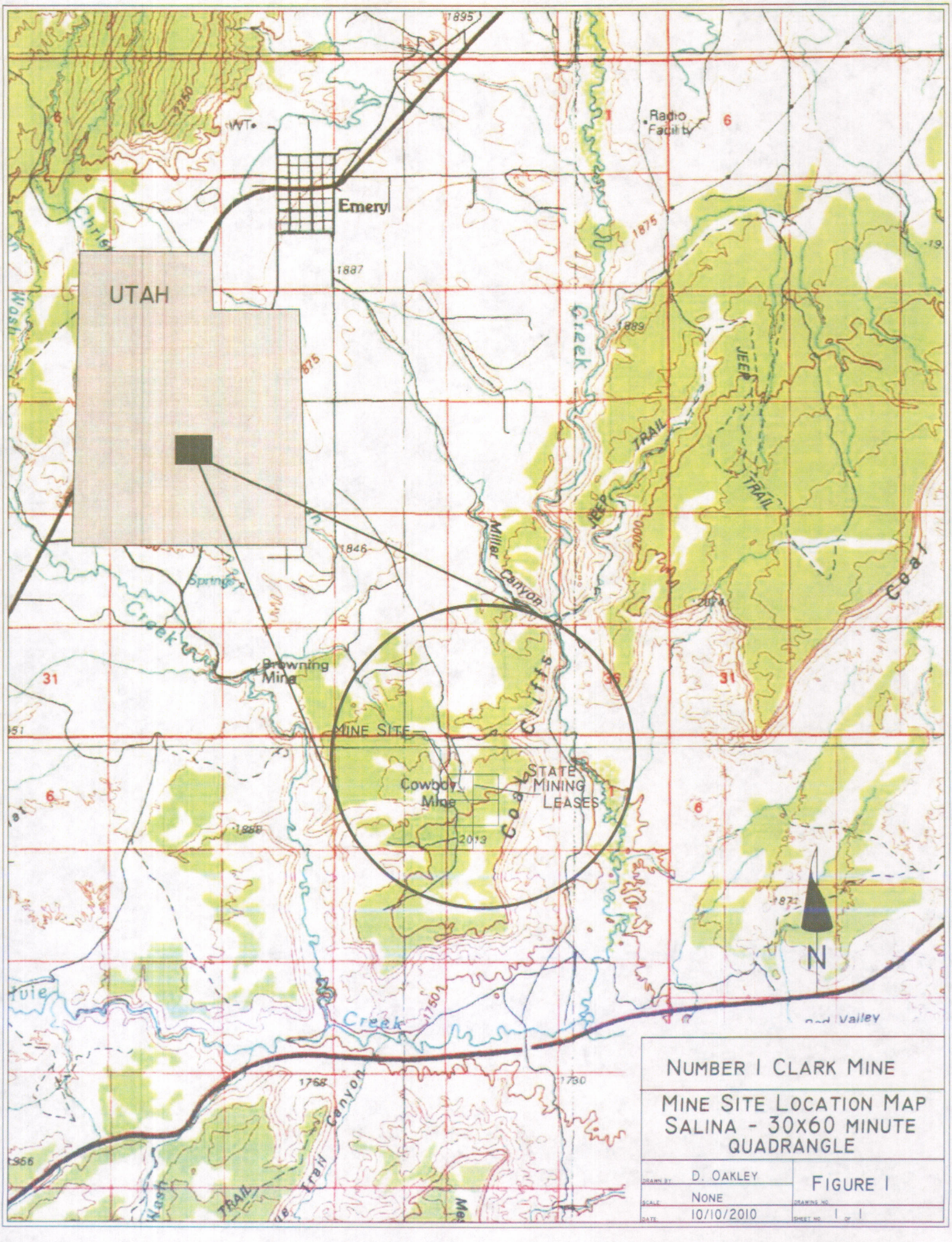
Figure 3:Proposed mine operations layout.

Clark Number 1 Mine

Figure 2: Disturbed boundries for hte Clark Number 1 Mine. The 4.4 acre area has been backfilled and graded. Seeding will be completed in the fall of 2016.

The 2.1 acre area is proposed for disturbance in March 2016.





NUMBER 1 CLARK MINE

MINE SITE LOCATION MAP SALINA - 30x60 MINUTE QUADRANGLE

DRAWN BY:	D. OAKLEY	FIGURE 1
SCALE:	NONE	DRAWING NO.
DATE:	10/10/2010	SHEET NO. 1 OF 1

Reference:

Gloyn, R.W. et al, Energy, Mineral, and Ground-Water Resources of Carbon and Emery Counties, Utah, Utah Geological Survey, Bulletin 132, 2003, pg. 111, referencing Siemers, C.T., and Waddell, J.S. 1977, Humate deposits of the Menefee Formation (Upper Cretaceous, northwestern New Mexico, *in* Fasset, J.E., editor, San Juan Basin III, Supplement to Guidebook: Albuquerque, New Mexico Geological Society Guidebook, 28th Field Conference, p. 1-21.

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National Cooperative Soil Survey, Soil Survey of Carbon Area, Utah, United States Department of Agriculture, Soil Conservation Service, Issued June, 1988.

configuration of the highwall at the Number 1 Clark Mine. Figure 4 5 illustrates the proposed reclaimed highwall once mining has ceased. It is proposed to contemporaneously reclaim the highwalls as mining progresses ~~south~~ north. No reclaimed slope will be constructed with a grade greater than 2 vertical to 1 horizontal.

Compliance with R647 Rules

In compliance with the R647-3- 07 regulations for operation practices, the Number 1 Clark Mine will protect public safety and welfare by placing signs around the perimeter of the work area as well as any access roads to the area. The signs will indicate "Active Mine Perimeter, Danger Keep Out".

A berm or fence will be installed above all highwalls to detour traffic from entering area. If berms are constructed, the base will be two times the height. And, the height will be at least axle height to an average pick-up truck (approximately 18 inches).

If drainage ways are impacted by mining operations, the up gradient flow path of water will be rerouted to by-pass the work area. All undisturbed overland flows shall be by-passed around the work area utilizing berms, ditches, pipes, or a combination thereof.

Best management practices (BMP's) shall be used to control erosion and sedimentation of the disturbed runoff prior to draining into an adjacent natural drainage systems. Erosion and sediment control shall be implemented to the extent practical utilizing BMP's such as; sediment traps, silt fences, straw logs, ~~mulches~~ diversion ditches, etc.

Trash and other extraneous materials shall be disposed of properly. Extraneous materials may be temporarily stored on-site in a manner that it is protected from wind gusts so that wind events do not scatter debris throughout or off the work site. These materials shall be removed from the work site and dispose of in a state approved landfill.

Doelling, 1972). The thickness of the overburden at the Number 1 Clark Mine varies between three (3) to eight (8) feet.

Highwall mining methods will be utilized at the Number 1 Clark Mine. These methods are conducted in a four step process. The initial step is to remove and stockpile topsoil. Topsoil in the mining area is only approximately two to four inches in depth and lies on a three to eight foot layer of solid sandstone overburden. After the topsoil has been segregated and stockpiled (refer to the Surface Facility Map (Figure ~~2~~ 3) for storage locations), the sandstone overburden will be removed and stored. This process may require the use of explosives to expedite the procedure. The overburden is removed using a track-hoe and/or loader and hauled to the subsoil storage area. ~~The subsoil pile is located on the southwest end of the disturbed area as shown on the Surface Facilities Map.~~

Once the overburden is removed a track-hoe is used to cut the humic shale ore from the face. The ore is loaded into haul trucks and hauled off-site directly to a processing facility. No humic shale ore will stockpiled on-site within the disturbed area of the Number 1 Clark Mine.

Presently, a ~~1.2~~ 2.1 acre mine pad and access road is planned for the site. If reserves prove sufficient, mining operation may extend farther to the ~~south~~ east and north. The Division will be notified prior to mining beyond the currently proposed area.

It is expected that approximately 250 cubic yards of topsoil will be salvaged from the proposed disturbed area. Subsoil may be minimal because of the over-riding sandstone overburden. Using an average of 4 foot thickness, it is estimated that approximately 6,000 cubic yards of sandstone and subsoil will be removed and salvaged. The material will be utilized to construct the proposed access road and berms. Excess material will be stored ~~on the north end of the facility pad~~ as detailed in Figure 3.

Highwalls are planned at the Number 1 Clark Mine. It is expected that highwalls will be approximately ten to fifteen feet in height. Protection to public safety and welfare around highwalls is discussed below. Figure ~~3~~ 4 shows a cross-sectional sketch of the expected

In 1997, the Clarks were awarded a small operations mining permit by the Utah Division of Oil, Gas, and Mining. This permit allowed underground mining from the nearby Cowboy Mine. Mining operations intended to utilize the four existing old adits from this mine to access the mineral reserve. However, no work was ever conducted at this mine site with the exception of very minor grading of the access road to the mine adits. The Utah Abandoned Mined Lands Program is now proposing additional reclamation at this mine site. Because portals remain open and presents a hazard to the general public, the program intends to seal the portals and place a bat grate in one of the portals.

Existing disturbances at the old Cowboy Mine site includes four open adits, roadways, large coal refuse piles, red dog areas, an old foundation, an old water retention dike, and loose coal that has been strewn about the general area. Pictures of this existing disturbance are on file at the UDOGM office. These facilities will not be utilized for the operations of the Number 1 Clark Mine. The Number 1 Clark Mine does not intend to assume any reclamation obligations for the abandoned Cowboy Mine site. If the Division of Abandoned Mined Lands wishes to reclaim this site, the Number 1 Clark Mine ~~will~~ can coordinate their operations with AML's reclamation operations.

Mine Operations

Humate is a weathered coal or carbonaceous mudstone or shale that contains large amounts of humic acid. Humic acids are mixtures of colloidal organic molecules, with molecular weights between 5,000 and 50,000 grams that result from decay of organic matter (Gloyn et al, 2003; Siemers and Waddell, 1977). A nearby mine; the Rockland Mine, mines humate from the Upper Cretaceous Ferron Sandstone Member of the Mancos Shale. The humic shale is processed and used primarily for soil amendments for agriculture. Other processing techniques might use the humate for a nutritional supplement for human consumption (UGS Bulletin #132, 2003).

Abundant humate occurs in coal of the Ferron Sandstone. The Number 1 Clark Mine intends to mine this mineral product from outcropping deposits. Overburden consists primarily of alternating thick to massive beds of tan, yellow-gray, mostly medium-grained sandstone, shaley sandstone of the same color, and shale. The shales are clayey, silty and carbonaceous (H.H.

Operation Plan

This section contains a narrative explaining the operations at the Number 1 Clark Mine site. A permit for this mine site (S/015/0074) was awarded in 1997 for underground operations at the old Cowboy Mine. Those operations never materialized, and therefore, the applicant ~~is submitting~~ submitted a new plan of operations for this site in 2010 revised in 2011. Operation began in the spring of 2011 initially mining to the south until the mining became unfavorable. Operations shifted to the west and ended at the western extent of the outcrop. It was decided in 2015 to reclaim this mine site as the quality of the humic shale declined and the reserve diminished.

Reclamation operations were started in the 4th quarter of 2015 and completed in the 1st quarter of 2016. Backfilling and grading was completed at the mine site. Highwalls were eliminated. Topsoil was spread throughout the disturbed area. Sediment control is maintained by roughening the reclaimed surface in an extreme manner to not allow overland flow. An approved seed mix will be applied to the entire site in the fall of 2016. These reclamation operations were performed to comply with the R647 Utah Mineral Regulations. Total disturbance of this extension of the mine is 4.4 acres (refer to Figure 1).

This current revision (3/2016) proposes a new area of mining to the north and east of the Cowboy Mine (refer to Figure 1). The new site is adjacent to the Cowboy mine. These operations are described in detail below.

Mine Type and Existing Operations

Robert L.(deceased) and Julie B. Clark are joint owners and operators the Number 1 Clark Mine. Together, they are the Lessee to approximately 200 acres of State land in Emery County (refer to Location Map in Figure ~~1~~ 2). Robert and Julie Clark were granted lease (ML-43181) by State and Institutional Trust Lands Administration (SITLA) for the purposes of mining the mineral known as humate or humic shale.

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Form MR-REV-att (DOGM – Revise/Amend Change Form)
(Revised September 14, 2005)

Application for Mineral Mine Plan Revision or Amendment

Operator: Robert Clark

Mine Name: Number 1 Clark Mine **File Number:** M/ 015 /074

Provide a detailed listing of all changes to the mining and reclamation plan that will be required as a result of this change. Individually list all maps and drawings that are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise or amend the existing Mining and Reclamation Plan. **Include page, section and drawing numbers as part of the description.**

DETAILED SCHEDULE OF CHANGES TO THE MINING AND RECLAMATION PLAN

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
☐ ADD	☒ REPLACE	☐ REMOVE	Operation Plan, refer to highlighted text
☐ ADD	☒ REPLACE	☐ REMOVE	Replace Figure 1
☐ ADD	☒ REPLACE	☐ REMOVE	Add Figure 2
☐ ADD	☒ REPLACE	☐ REMOVE	Replace Figure 3
☐ ADD	☒ REPLACE	☐ REMOVE	Replace Figure 4
☒ ADD	☐ REPLACE	☐ REMOVE	Add Figure 5
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
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☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments and obligations, herein.

Print Name

Sign Name, Position

Date

Return to:

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Phone: (801) 538-5291 Fax: (801) 359-3940

FOR DOGM USE ONLY:
File #: M/ /
Approved:
Bond Adjustment: from ($)
to $

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